Fabien Cesari
Real-Time Signal Processing Engineer

fabien.cesari@gmail.com

Professional Experience

2012–2013   **IRCAM - Institut de Recherche et Coordination Acoustique/Musique - Paris, France** - Development and Research Engineer -
Project voice for games : Optimization and improvement of the voice following method based on a short time Viterbi algorithm.
Project Sample Orchestrator II : Porting and real time development of a spectral envelope generator, a synthesis method based on a instrument model approach.
Tools and languages : C, C++,Python, Matlab - mex, development of externals for Max/Msp - svn, git

2011–2012   **Arkamys - Paris, France** - Real time embedded Engineer -
Development of a real time HMM based speech recognition application embedded on an ARM/DSP platform. Tools and languages : C, C++,Python, Texas Instrument ARM/DSP, Embedded unix, STM32 card based on ARM, HTK.

2011   **Voxler Games - Paris, France** Final internship (6 months). Developed a C++ sound application to be implemented in Aldebaran Robotics "Nao" robot, as part of the "YOJI" project. Development and implementation of a pitch calculating algorithm and speech compression for DSP, as part of the European "Wear a Ban" project.
Tools and languages : C, C++, Python, Qt, Speex, HTK.

2010   **ENSEA/ETIS - Cergy, France** Internship (3 months). Design and production of an hall effect driven sensor controller for making underwater music. Performance with the instrument in the Balaklava Odyssey Festival in Ukraine (August 2011).
Programming Langages : C, Pure Data.

2006   **Thales Aerospace - Brest, France** Internship (2 months). Study of a DC/DC converter for an embedded application.

Education

2007–2011   **Ecole Nationale Supérieure de l'Electronique et de ses Applications (ENSEA)** - Graduate School in Electrical Engineering, Computer Science and Telecommunications. Major : Signal Processing, Real-Time & Communications (with honors).
Three elective courses : Musical Acoustics, Speech Processing, Image Processing.

2006–2007   **Lycée Diderot - Paris, France** - Preparatory classes for the nationwide competitive examination to the French Grandes Ecoles for scientific studies.

2004–2006   **Lycée Dhuoda - Nimes, France** - Associate degree in Electronics and Engineering Technology.

Musical Education

2005–2006 **Nime's Conservatoire of music** Auditor at the Alex CLAPOT jazz and guitar improvisation class.

2004–2005 **Ajaccio's Conservatoire of music** lyric singing and music theory lessons. Integration of the André JAUME's jazz improvisation class (Guitar)

1999– 1999-Present time Self teaching Bass technique and harmony basics for composition and music production.

Other Experience

2008–2009 President of ENSEA's Musical Computing Association

2006 Sound recording and mixing parts of Daniel MONDOLONI's documentary "Faire Ailleurs".
Sound engineer assistant on a short movie by Jean Luc DELMON-CASANOVA : "Coco-Cayenne".

2002–2007 Summer job as a waiter in many restaurants (South Corsica).

Languages and Computer Skills

English	fluent
Italian	spoken
German	beginner
Programming	C/C++, Qt, Python, Java, Pure Data, Max/MSP, Matlab, Mathematica
Hardware	Texas Instruments boards, STM32, Arduino, Rabbit microcontrollers
Office	MS Office, Open Office, LaTeX.

Leadership and Extra-Curricular Activities

Cultural - Artistic	Modular synthesizers, DIY eurorack modules , analogue audio effects, Music production and mixing. Contemporary music and performance (underwater concert at the Balaklava odyssey contemporary art festival, 21x21 gigs for car in the off festival for the Parisian "Nuit Blanche"...), collecting vinyls and playing records, Reading novels and magazine (Wire). Cinema.
Photography	Traditional photography and processing.
Sports	Bike building and racing, scuba diving, sailing (Catamaran, fun board), surfriding, swimming, cross country.